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## Well and Septic Conventional Sandmound Septic Systems

*This handout is intended to clarify the fundamentals of conventional sandmound septic systems. It is not intended to address design details of the systems since the design shall be completed by a qualified professional.*

### ***What is a conventional sandmound septic system?***

- A sandmound is a type of sewage disposal system that is elevated above the natural soil surface in a suitable sand fill material. A gravel filled bed is constructed in the sand fill where effluent from a pump chamber is pumped through a pressure distribution network. A conventional sandmound septic system can be constructed in areas that meet all site restrictions and where infiltration (percolation) test rates are within the range of five (5) to sixty (60) minutes per inch.

### ***In what situations can a sandmound septic system be utilized?***

- In some applications, the sandmound septic system can be used to overcome site limitations which would preclude the use of other conventional on-site sewage disposal systems. Such site limitations include shallow depth to groundwater and shallow depth to excessive coarse rock fragments. Sandmounds cannot necessarily be used in all areas in which standard percolation testing has 'failed.' Sandmound infiltrometer testing is much more restrictive than testing for conventional trench systems, since it only measures vertical movement of water through the soil at the most restrictive layer.

### ***What is the cost of a sandmound septic system installation and what is the average life span?***

- The average cost of a complete sandmound septic system installation ranges from \$35,000 to \$40,000, depending on the availability of suitable sand and other materials.
- The average life span of a sandmound is 20 to 30 years, depending on use and maintenance. (This is the same as a conventional trench septic system).

### ***Who can install a sandmound septic system?***

- A sandmound septic system must be installed by a Maryland certified installer. Maryland Department of the Environment certifies new installers once a year (completion of a one-day class and examination are required).

### ***What are some of the basic requirements for sandmound septic system approval?***

- Some basic requirements for sandmound septic system approval are:
  - Infiltration rate must be between five and sixty minutes per inch
  - The site must not be compacted or altered in any way (by earthmoving or other equipment)
  - Slope of the ground must be less than 12 percent for the entire area of the sandmound and the area within 25 feet of the sandmound
  - Groundwater and excessive rock fragments must be greater than 24 inches from the natural surface
  - The proposed sandmound must be at least 100 feet from all water wells, 100 feet from all bodies of water and 30 feet from all structures
  - Construction season during dry weather conditions only (May 1<sup>st</sup> thru October 31<sup>st</sup>, weather permitting)
  - Sandmounds can only be constructed using sand from an approved source, which can be of limited supply
  - Heavily wooded sites may not be approved due to the amount of ground contact lost due to root masses
  - Landscape position must be on a summit, linear side slope or shoulder (not on concave or convex slopes)

***If you need additional information regarding sandmound septic systems, please contact the Well and Septic Section.***

***\*\*\*Please see reverse for diagrams.\*\*\****

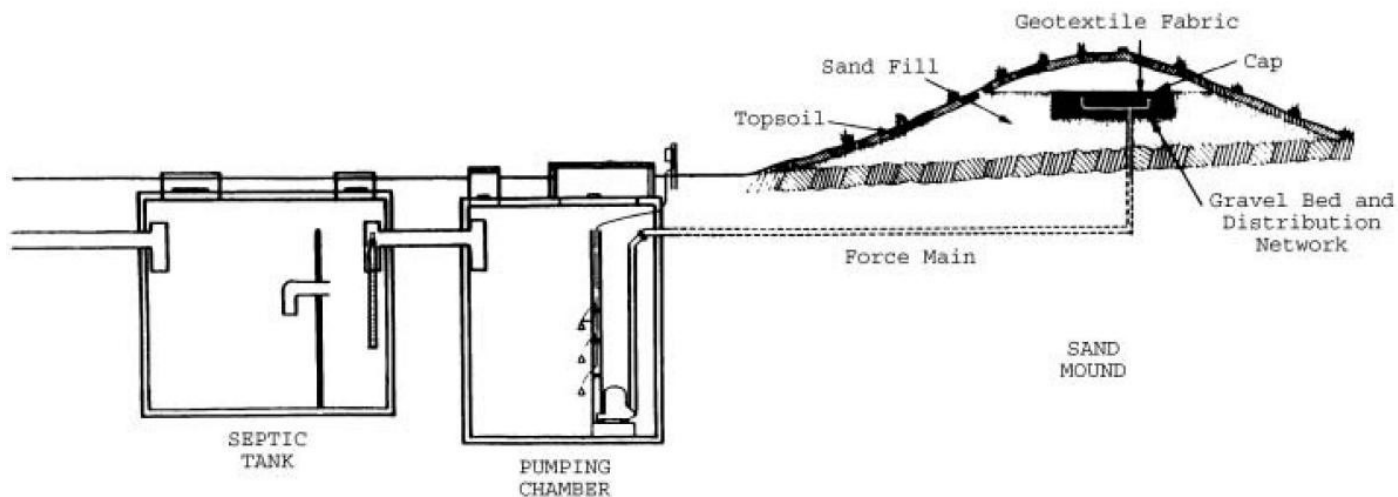


FIGURE 1.1 – TYPICAL CROSS SECTION OF A SAND MOUND SYSTEM  
(not to scale)

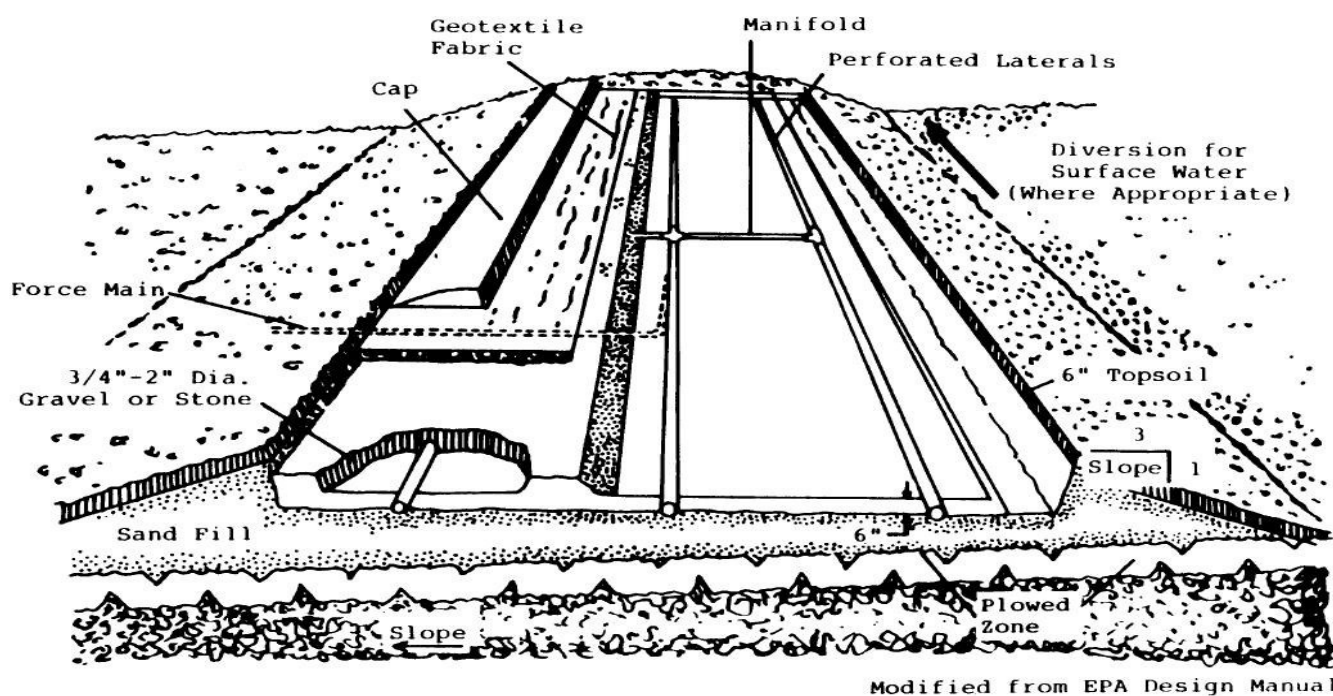


FIGURE 1.2 – DETAILED SCHEMATIC OF A SAND MOUND SYSTEM